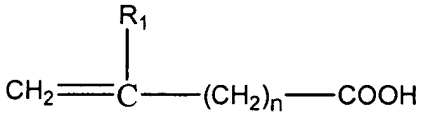
REMARKS

Applicants have canceled claims 43-44, without prejudice and disclaimer of the subject matter. Claims 24-42 and 45-57 are pending.

In the Office Action, the Examiner rejected claims 43 and 53 as lacking proper antecedent basis for "the radical initiator"; rejected claims 24-27 and 30-57 under 35 U.S.C. § 102(b) as anticipated by Japanese Patent Publication H10-283851 to Nomura et al.; and rejected claims 28 and 29 under 35 U.S.C. § 103(a) as unpatentable over Nomura et al.

The Examiner indicated that "the radical initiator" lacks antecedent basis in claim 43. In view of Applicants having canceled claims 43-44, this issue is moot. The Examiner also indicated that "the radical initiator" lacks antecedent basis in claim 53. Claim 53 recites a polymeric composition according to claim 52, wherein the organic peroxide is chosen from dicumyl peroxide, t-butylcumyl peroxide, 2,5-dimethyl-2,5-di(t-butyl-peroxy)hexane or di-t-butyl peroxide. While claim 52 includes "the radical initiator" term, that claim depends from claim 47 which provides appropriate antecedent basis. Applicants would appreciate clarification should the Examiner continue to reject claim 53 for lack of antecedent basis.

Regarding the anticipation rejection, claims 24, 38, 47, and 57 recite, *inter alia*, a polymeric composition comprising a polyethylene, a radical initiator and at least one unsaturated carboxylic acid of general formula (I) in free form:



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in which R_1 represents H or CH_3 and wherein the polymeric composition is cross-linked.

The Examiner cited page 5, lines 25-28 of Nomura et al. for allegedly disclosing a polyethylene grafted with at lest one unsaturated carboxylic acid of the general formula claimed by Applicants. Nomura et al. disclose, however, a cross-linked ethylene-based copolymer and a dibasic acid anhydride grafted to a copolymer (p.5, lines 15-18). This reference further discloses that other resins can be used, such as, ethylene-propylene copolymers, ethylene-acrylic acid copolymers, ethylene-vinyl acetate copolymers, ethylene-styrene copolymers and ethylene-propylene-diene-based tertiary copolymers (p. 6, lines 5-6). Applicants submit that the cross-linked polymeric composition of the present claims is a species of the cross-linked copolymer disclosed in Nomura. Because disclosure of a genus does not anticipate a claimed species, Applicants request that the Examiner reconsider and withdraw the rejection under 35 U.S.C. § 102(b). *See Corning Glass Works v. Sumitomo Electric, U.S.A.*, 868 F.2d 1251, 1262 (Fed. Cir. 1989).

Regarding the radical initiator, the Examiner alleged that "Nomura teaches a radical initiator of the same type contemplated by applicants" on page 2 of the Office Action. Nomura, however, discloses using a specific radical initiator, 2,5 dimethyl-2,5-di(t-butylperoxyhexane) (Abstract) and, in fact, teaches away from Applicants invention. Nomura discloses at p.4, lines 17-29, that decomposition of DCP "residues can undergo secondary decomposition to produce water, and since this moisture markedly impairs the insulator breakdown characteristics by producing voids in the insulator layer."

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Applicants further traverse the rejection of claims 28 and 29 under 35 U.S.C. § 103(a). Claims 28-29 relate to modifying a polyethylene homopolymer during the extrusion and cross-linking step by adding unsaturated carboxylic acid. The Examiner recognized that Nomura "does not specifically teach the grafting method," but alleged that it would have been obvious "because the heat of extrusion would have been sufficient to cause reaction of the carboxylic acid" (Office Action, page 4).

As a preliminary matter, one of ordinary skill in the art would have understood claim 24, from which claims 28 and 29 depend, to recite, *inter alia*, adding the unsaturated carbocylic acid to modify the polyethylene homopolymer during the extrusion and cross-linking step. Nomura disclose a copolymer of ethylene containing a dibasic acid anhydride and at least one monomer containing a polar group (p.5, lines 15-19). In contrast to Applicants' claims, Nomura extrudes and cross-links an already modified ethylene-based co-polymer. The Examiner recognized that the reference fails to disclose modifying a polyethylene homopolymer during an extrusion and cross-linking step by adding carboxylic acid in the form of granules as recited in claim 28 or mixing with the polyethylene directly in an extruder cylinder as recited in claim 29. The Examiner alleged, however, that it would have been obvious to do so "because the heat of extrusion would have been sufficient to cause reaction of the carboxylic acid" (Office Action, page 4). Applicants respectfully that the Examiner has provided no factual basis for this position

Applicants also submit that the reference fails to provide the requisite motivation to modify Nomura in the manner suggested by the Examiner. Because the ethylene-based co-polymer of Nomura is already modified prior to the extrusion and cross-linking

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step, it makes no difference whether or not the "heat of extrusion would have been sufficient to cause reaction of the carboxylic acid" as asserted by the Examiner. Moreover, the reference fails to provide an incentive to modify the disclosed ethylene-based co-polymer during the extrusion and cross-linking step. Applicants, therefore, request that the Examiner reconsider and withdraw the rejection of claims under 35 U.S.C. § 103(a).

Accordingly, Applicants submit that claims 24, 38, 47, and 56 are in condition for allowance, as are claims 25-37, 39-46, 48-55, and 57 at least by virtue of their dependency from allowable claims 24, 38, 47, and 56.

In view of the foregoing amendments and remarks, Applicants respectfully request the reconsideration and reexamination of this application and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

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Dated: July 15, 2003

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